

9.3000

7-25-1
307/57-25-10-10/13

AUTHORS: Vorob'yev, A. A., Ivanov, B. A., Komar, A. P., Korolev, V. A.

TITLE: Influence of Ramsauer-Townsend Effect on the Mobility of Electrons in Spectroscopically Pure Argon

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1959, Vol 29, Nr 10, pp 1252-1258 (USSR)

ABSTRACT: The purpose of the paper is to verify the influence of Ramsauer-Townsend effect on the mobility of electrons in spectroscopically pure argon. The study is experimental in nature. The drift of electrons is measured as a function of E/p , where E is intensity of the electric field and p is barometric pressure of argon in the experimental chamber. The experiments were carried out for values of E/p between 0.001 and 1.5. At small values of E/p a maximum was observed similar to that obtained by other investigators. This maximum could be explained as the result of the Ramsauer-Townsend effect, or it might have been caused by the excitation of molecular levels owing to the presence of impurities in argon. For this reason industrial argon of 99.6% was also used. The ionization chamber was filled with argon at

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Influence of Ramsauer-Townsend Effect on the Mobility
of Electrons in Spectroscopically Pure Argon

75333
SOV/57-29-10-10/13

pressures of up to 1,000 mm Hg. For a source of α -particles ^{234}U was used. The impurities in the spectroscopically pure argon amounted to less than $10^{-4}\%$. The total sum of errors did not exceed 20%. The mean free path λ of the electrons at a pressure of 1 mm Hg and the average fraction of energy f lost in one collision were measured, and the values obtained fully corroborated the influence of the Ramsauer-Townsend effect on the electron mobility in the spectroscopically pure argon. When industrial argon was used it was found that the value of f is affected by argon impurities influencing the maximum value of E/p . This, however, is not to be taken as the result of Ramsauer-Townsend effect. There are 6 figures, and 3 references, 6 U.S., 1 Canadian, and 1 French. The U.S. and Canadian references are: Nielsen, R. A., Phys. Rev.; 50, 950, 1936; Klema, E. D., Allen, J. S., Phys. Rev., 77, 661, 1950; Kirchner, J. M., Toffolo, D. S., J. Appl. Phys., 23, 594, 1952; Bortner, T. E., Hurst, G. S., Stone, W. G., RS1, 23, 103, 1957; Bell, P.R., Jordan, W. H., Davis, R. C., Phys. Rev., 83, 490, 1951; Colli, L., Facchini, U., RS1, 23, 39, 1952; English, W. N., Hanna, G. C., Can. J. Phys., 31, 703, 1953.

Card 2/3

Influence of Rambauer-Townsend Effect on the Mobility
of Electrons in Spectroscopically Pure Argon

773
309/37-10-10/13

ASSOCIATION: Institute for Technical Physics, Academy of Sciences, USSR
(Fiziko-tehnicheskiy institut, AN SSSR)

SUBMITTED: April 27, 1959

Card 3/3

BELEN'KII, D.N., professor, nauchnyy rukovoditel'; IVANOV, B.A., nachal'nik.

Group hemolysins and their role in the genesis of post-transfusion complications. Klin.med. 31 no.8:13-18 Ag '53. (MLRA 6:11)

1. Moskovskaya gorodskaya stantsiya perelivaniya krovi pri Klinicheskoy ordena Lenina bol'nitsse im. S.P.Botkina.
(Blood--Transfusion) (Hemolysis and hemolysins)

IVANOV, B.A., fel'dsher (Yelets)

Laboratory treatment of X-ray films. Fel'd. i akush. 25 no.8:52-
53 Ag '60. (X RAYS) (MIRA 13:8)

IVANOV, B.A., (MOSCOW, USSR)

Klinik und Therapie des Ovarialkarzinoms.

Report submitted for the 3rd World Congress, Intl Federation of
Gynecology and Obstetrics, Vienna, Austria, 3-9 Sep 1961.

SARKISOV, A.G., zasluzhennyj vrach RSFSR; IVANOV, B.A., vrach

Working on a hot day. Put' i put.khoz. 5 no.8:29-30 Ag '61.

(Heat---Physiological effect) (Hygiene) (MIRA 14:10)

S/120/63/000/001/062/072
E039/E420

AUTHOR: Ivanov, B.A.

TITLE: An automatic nitrogen trap supply system

PERIODICAL: Pribory i tekhnika eksperimenta, no.1, 1963, 194-195

TEXT: The proposed system provides a stable depth of coolant in the trap until the liquid nitrogen supply is exhausted. It overcomes a number of disadvantages in an earlier system. Thermo-resistances are used as sensing units and the pressure in the Dewar flask is controlled by means of a heater. The level of liquid nitrogen in the trap is indicated by means of a potentiometer. Constructional details of the main control valve are given together with the control circuit. The system is reliable in operation and is easily made in the laboratory. There are 2 figures.

SUBMITTED: March 24, 1962

Card 1/1

27882

S/020/61/140/001/021/024
B130/B101

11/100

AUTHORS: Kogarko, S. M., and Ivanov, B. A.

TITLE: Pressure limit of a spontaneous expansion of the reaction zone
in acetylene

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 140, no. 1, 1961, 165-167

TEXT: The authors determined the minimum pressure at which a spontaneous expansion of the reaction zone of C_2H_2 throughout the volume of the gas still takes place. They pointed out the technical importance of the boundaries of the reaction zone, especially in the case of C_2H_2 . The decomposition of acetylene at different initial pressures was studied in a steel tube of 1500 mm length and 160 mm diameter. Four plexiglass windows in the tube served for observing the expansion of the reaction zone. The expansion along the tube was photographed. A steel tube of 20 m length and 400 mm diameter served for control tests. The acetylene decomposition was initiated either with a red-hot Nichrome coil by discharging a capacitor in the acetylene space studied, or by combustion of a small quantity of explosive in a rubber container. The experimental determina-

X

Card 1/2

111210
117200

34755
S/020/62/142/003/023/027
B101/B110

AUTHORS: Ivanov, B. A., and Kogarko, S. M.

TITLE: Upper concentration limit for flame propagation in mixtures of acetylene with oxygen or air

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 5, 1962, 637-638

TEXT: Experiments were conducted to clarify the contradiction between data found by the authors (Ref. 1: DAN, 140, no. 1 (1961)) and H. F. Coward, G. W. Jones (see below). Accurate measurement of the spark energy required for igniting pure C₂H₂ showed: a spark energy of ~1 joule was sufficient at 1.6 atm. At the minimum pressure for acetylene ignition (0.65 atm), the spark energy was ~1200 joules. The effect of admixed N₂, air, or O₂ was studied (Fig. 2). Conclusions: (1) Small O₂ admixtures increase the explosion danger as compared with pure C₂H₂; (2) small air additions reduce the explosion danger; (3) the data found in Ref. 1 for the concentration limits of O₂ and air in C₂H₂ correspond to the initiation Card 1/R ✓

Upper concentration limit for flame... S/020/62/142/003/023/027
B101/B110

energy used for igniting acetylene. Photorecording of the flame propagation velocity in various mixtures showed that the visible flame velocity reflected qualitatively the dependence of the ignition energy on the mixture composition. There are 3 figures and 2 references; 1 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: H. F. Coward, G. W. Jones, Bureau of Mines, Bull. 503 (1952). *✓*

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR)

PRESENTED: August 28, 1961, by V. N. Kondrat'yev, Academician

SUBMITTED: August 22, 1961

Card 2/3

KOGARKO, S.M.; IVANOV, B.A.; GRUNIN, A.Ye.

Concentration limits of flame propagation in an acetylene-air mixture. Dokl.AN SSSR 145 no.6:1308-1310 Ag '62. (MIRA 15:8)

1. Institut khimicheskoy fiziki AN SSSR. Predstavлено академиком V.N.Kondrat'yevym.

(Acetylene) (Flame)

L 17452-63

Pc-4/Pr-4 RM/WW

ACCESSION NR: AP3006129

EPR/E/P(j)/EPF(c)/EMT(l)/EMT(n)/BDS AFTTC/ASD Ps-4./

S/0207/63/000/004/0094/0097

AUTHOR: Ivanov, B. A. (Moscow); Kogarko, S. M. (Moscow) 72.

TITLE: Study of the shape of the surface of an acetylene decomposition flame propagating in a horizontal tube

SOURCE: Zhurnal prikladnoy mehaniki i tekhnicheskoy fiziki, no. 4, 1963,
94-97TOPIC TAGS: acetylene flame, flame front, flame propagation, concave flame,
convex flame, acetylene decomposition flame

ABSTRACT: The shape of the front of an acetylene flame propagating in a horizontal tube 750 mm long and 50 mm in diameter at 2.5-5 atm pressure has been studied by means of ionization gauges (0.5-1-mm ionization gaps) placed 10 mm apart in vertical and horizontal planes at the closed end of the tube. The mixture was ignited at the open end of the tube with a heated nichrome wire. Ionization-gauge measurements made with oscilloscopes and time-resolved photographs showed that the flame front is concave at pressures lower than 4.5 atm.

Card 1/2

L 17452-63

ACCESSION NR: AP3006129

At 4.5 atm and above, the flame front is convex. The existence of a stable concave flame front is explained by strong convection in the vicinity of the front. It is anticipated that other slow-burning mixtures may exhibit a transition from convex to concave flame fronts, particularly when the flame is propagating vertically downward. Orig. art. has: 5 figures.

ASSOCIATION: none

SUBMITTED: 26Apr63

DATE ACQ: 11Sep63

ENCL: 00

SUB CODE: AI, FL

NO REF SOV: 093

OTHER: C01

Card 2/2

L 12590-63 EWP(j)/EPF(c)/EWT(m)/BDS PC-4/Pr-4 RM/WF
ACCESSION NR: AP3003227

S/0020/63/150/006/1300/1303

AUTHOR: Ivanov, B. A.; Kogarko, S. M.

TITLE: Standard combustion rate of pure acetylene

SOURCE: AN SSSR. Doklady*, v. 150, no. 6, 1963, 1300-1303

TOPIC TAGS: acetylene, combustion rate, H sub 2, ionization detector

ABSTRACT: Because values in the literature have been obtained by methods involving considerable error, the authors determined the standard combustion rate for acetylene using the apparatus shown in Fig. 1 of the enclosure. The relationship between the standard combustion rate and initial pressure was determined at constant temperature (18-20°C) at pressures from 2.5-5.0 atm (0.5 atm intervals). The value of the standard combustion velocity was calculated from equation 1 [enclosure]. The authors describe a method for determining the flame's shape with an ionization detector. There is a linear relationship between log P and the standard combustion rate, with the curve having a slope of 45°, i.e. U sub S = P sup n, where n = 1. If the reaction were carried out homogeneously in the gaseous phase, the combustion of acetylene would be a fourth order reaction with 3 maxima for the reaction zone. However, because solid hydrocarbons are formed

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L 12590-63
ACCESSION NR: AP3003227

together with H sub 2, the reaction does not correspond with theory and only 2 maxima were found on the oscillogram for the reaction zone. The paper was presented by Academician N. N. Semenov on 2 March 1963. Orig. art. has: 3 figures and 1 formula.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences SSSR)

SUBMITTED: 25Feb63 DATE ACQ. 24Jul63 ENCL: 02
SUB CODE: CH NO REF Sov: 000 OTHER: 002

Card 2/42

ACCESSION NR: AP4034283

S/0207/64/000/002/0164/0166

AUTHORS: Ivanov, B. A. (Moscow); Kogarko, S. M. (Moscow)

TITLE: Investigation of the normal burning velocity and critical diameters for pure acetylene decomposition in vertical tubes

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 2, 1964, 164-166

TOPIC TAGS: decomposition flame, acetylene flame, flame surface, incomplete acetylene decomposition, flame propagation, critical diameter

ABSTRACT: The normal velocity U of acetylene decomposition flames in 50-mm diameter vertical tubes was determined using the measurement techniques previously employed by the authors (Normal'naya skorost' plameni raspada chistogo atsetilena. Dokl. AN SSSR, 1963, t. 150, no. 6). Values of U and apparent velocity V ($U=VS/A$ where S - tube cross sectional area; A - flame surface area) are plotted versus pressure (in atm). In the pressure range 2.5-5.0 atm the magnitudes of U are shown to be 2.5 times larger than those reported by G. A. Cummings, A. R. Hall, and A. M. Straker (Decomposition flames of acetylene and methyl acetylene, 8-th Sympos. (Intern), Combust., 1962, Baltimore, p. 503, 510). This difference may be

1/2

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ACCESSION NR: AP4034283

attributed to the incomplete decomposition of the acetylene because of the small tube size. Values measured in 9-mm tubes, on the other hand, show better agreement ($U = 2.2 \text{ cm/sec}$ at 2.2 atm pressure). Flame propagation from bottom-to-top is shown to be slower than propagation horizontally, indicating stronger convective effects in horizontal propagation. Critical diameter measurements d in the pressure range 1-4.5 atm show much lower values for bottom-to-top propagation than in top-to-bottom or horizontal directions, which at 1.6 atm amount to 20 mm and 60 mm, respectively. Orig. art. has: 5 figures, 1 formula, and 1 table.

ASSOCIATION: none

SUBMITTED: 15Nov63

SUB CODE: FP

DATE ACQ: 15May64

ENCL: 00

NO REF Sov: 002

OTHER: 002

Card

2/2

IVANOV, B.A. (Moskva); KOGARKO, S.M. (Moskva)

Study of the normal speed of propagation of a flame and the
limit diameters in the decomposition of pure acetylene in
vertical tubes. FMTF no.2:164-166 Mr-Ap '64. (MIRA 17:8)

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000619020009-4

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000619020009-4"

Under normal conditions fuel-air and fuel-oxygen mixtures ignite at initiation energies of the order of several millijoules or fractions of a millijoule.

NO. OF REV: 350

REV: 10 SUB-COR: 00, 00
OTHER: 020 JPS

IVANOV, B.A.; KOGARKO, S.M., prof.

Explosive properties of pure acetylene and its mixtures and other
gases. Zhur.VKHO 9 no. 3:280-289 '64.
(MIRA 17:9)

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619020009-4

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619020009-4"

NO REF COV: C00

OTHER: 000

C

ACC N.R. AP5026073

SOURCE CODE: UR/0406/06/000/002/0105/0106

AUTHOR: Iyanov, B. A.; Kogarko, S. M.

ORG: None

TITLE: Ignition energy of pure acetylene and of its air mixtures at increased initial pressures

SOURCE: Nauchno-tehnicheskiye problemy goreniya i vzryva, no. 2, 1985, 105-108

TOPIC TAGS: acetylene, ignition, ignition point, ignition test

ABSTRACT: Some researchers found at pressures of less than 1.6 atm. abs. that the ignition energy of pure acetylene is about 1,000 times larger than in ordinary two-component explosive gaseous mixtures. Other experiments indicated that within the 3 — 13 atm. abs. range that energy decreases by a factor of 10^6 from its maximum measured values. Results of experiments described briefly in this paper are shown in Fig. 1, together with the results obtained elsewhere.

Card 1/3

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619020009-4"

UDC: 536.46

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L 6423-66

ACC NR. AP5026073

at.abs.

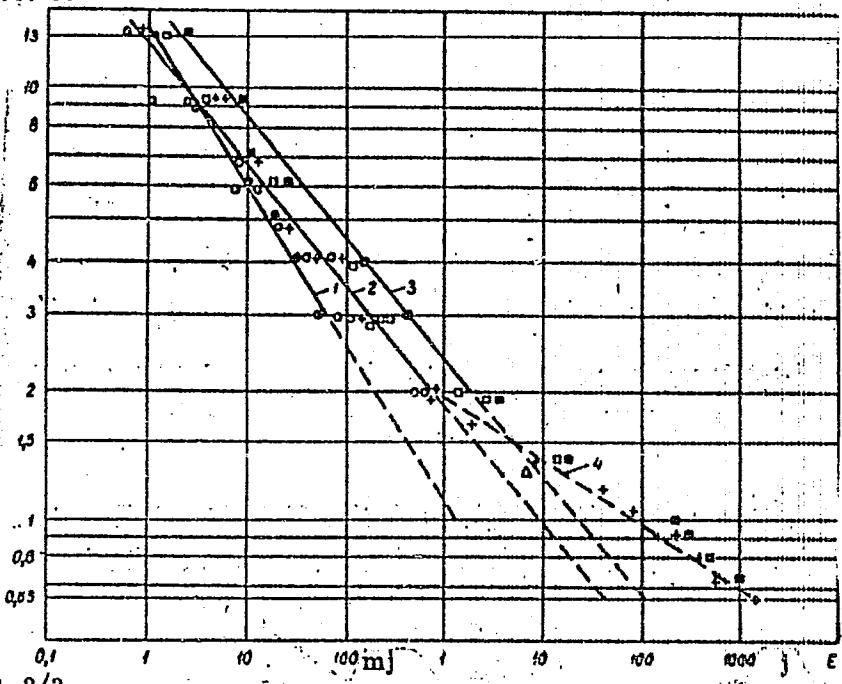


Fig. 1 Ignition energy
of pure acetylene and
of its mixture with
air at various pres-
sures.

- pure C_2H_2 [27],

- $C_2H_2 + 17\%$ of

air [17]. (ref. 1:
B. A. Ivanov, S. M.

Kogarko, PMTF, 1963
3: ref. 2: H. H. Nel-

son, The effect of
pipe diameter on the
thermal decomposition
of acetylenes, 6-th
Sjympos. on Combust.,
1957, p. 823)

Card 2/3

ACC NR: AP5026073

It is shown that whereas small additions of oxygen make the acetylene more explosive, there exists, at all pressures, a region of air addition amounts for which the mixture is less ignitable. The paper concludes with a brief discussion of the possible explanation of the effects observed. Orig. art. has: 2 figures and 1 table.

SUB CODE: WA, FP, GC / SUBM DATE: 16Dec64 / ORIG REF: 003 / OTH REF: 002

CC
Card 3/3

ACC NR: AP6004884

SOURCE CODE: AT

UR/0057/66/036/001/0102/0110

69
67
B

AUTHOR: Afrosimov,V.V.; Ivanov,B.A.; Kislyakov,A.I.; Petrov,M.P.

ORG: none

TITLE: Investigation of the plasma concentration in the "Al'fa" installation with a probe beam of fast atoms

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 1, 1966, 102-110

TOPIC TAGS: hydrogen plasma, plasma diagnostics, particle beam, neutral particle, atomic beam, plasma density, plasma magnetic field, plasma decay, plasma dynamics, plasma concentration

ABSTRACT: The authors have employed their technique of plasma diagnosis with a fast atomic beam to investigate the hydrogen ion concentration in plasmas in the "Al'fa" installation over a wide range of operating conditions. The theory of the technique and the apparatus employed have been described in a previous paper by the authors (ZhTF, 36, 89, 1966/ see Abstract AP6004883/). For the present measurements the apparatus was so adjusted as to have a resolving time of 30 μ sec. Under all operating conditions the proton density rose rapidly to a maximum value of n_{max} at time t_{max} after initiation of the discharge, decreased less rapidly with irregular fluctuations until the discharge current fell to zero, and subsequently decreased exponentially with the time constant T . The variations with the discharge conditions (the gas pressure P_0 prior to the discharge, the strength H_z of the longitudinal magnetic field,

Card 1/2

UDC:533

2 12 11-56

ACC NR: AP6004884

and the potential U on the capacitor bank feeding the eddy winding) of the parameters n_{max} , t_{max} , T, and the time $t_{0.5}$ during which the proton concentration was greater than half its maximum value are presented graphically and are discussed at some length. n_{max} was proportional to P_0 and, for fixed P_0 , increased linearly with H_z . Values of n_{max} up to nearly 10^{14} cm^{-3} were observed. The ionization was relatively independent of U and increased from about 42% for $H_z = 200 \text{ Oe}$ to approximately 85% for $H_z = 1 \text{ kOe}$. For $U = 10 \text{ KV}$, t_{max} and $t_{0.5}$ reached minimum values of 0.5 and 1.4 msec, respectively, at about the same value (360 Oe) of H_z . T increased linearly with H_z from approximately 0.25 msec for $H_z = 200 \text{ Oe}$ to 0.8 msec for $H_z = 800 \text{ Oe}$. Mechanisms possibly contributing to the plasma decay are discussed and it is concluded that diffusion plays no appreciable part, that drift in the toroidal magnetic field makes the most significant contribution, and that recombination may be important if the plasma temperature at this stage is of the order of 0.2 eV. The authors thank V.Ye.Golant for valuable discussions and N.V.Fedorenko for his interest. Orig. art. has: 8 formulas and 9 figures.

SUB CODE: 20/

SUM DATE: 22Jul65/

ORIG REF: 010/

OTH REF: 004

Card 2/2 ULF

31233. IVANOV, N. A.

Novye knigi [po khirurgii. Annotir. spisok] . Khirurgiya, 1949, No.9,
s. 94-95

IVANOV, B.A.

In the Scientific Council of the V.L. Komarov Far Eastern Branch
of the Academy of Sciences of the U.S.S.R. Soob. DVFAK SSSR no.7:
92-94 '55.
(Vladivostok--Dissertations, Academic) (MIRA 10:4)

IVANOV, B. A. ed.

Sovetskaia literatura po meditsine. Ukazatel' knig i statei 1941-1944 gg. / Soviet medical publications,. Bibliography of books and articles for 1941-1944/. Moskva, Medgiz, 1948. 1004 p.

See: Monthly List of Russian Acquisitions, Vol. 7 No. 2 May 1954.

IVANOV, B. A.

PA 152T48

USSR/Medicine - Literature
Rehabilitation

Oct 49

"New Books," B. A. Ivanov, 4 1/2 pp

"Khirurgiya" No 10

Lists 16 new books, among them: "Problems in Rehabilitation of Disabled Veterans of World War II," edited by V. A. Makarov, and "Successes in Treating Certain Acute Diseases of Organs in the Peritoneal Region. During the Thirty-Year Existence of the Soviet Public Health Department, 1917 - 1947." Other books are collected works of various medical institutes or hospitals -- the Naval Med Acad, etc.

152T48

63/49167

IVANOV, B. A.

USSR/Medicine - Literature
Medicine - Surgery

May 49

"New Books" 3. A. Ivanov, 2 pp

"Khirurgiya" No. 5

Briefly discusses contents of nine new books, among them: "Injuries From Electric Current and Lightning," by A. D. Kaplan, "Cancer of the Stomach," by N. M. Nikoleyev, and "Problems of Prosthetics, A Collection of Scientific Works of the Leningrad Scientific Research Institute of Prosthetics."

63/49167

PA 52/49774

IVANOV, R. A.
USR/Medicine - Publications
Medicine - Cancer

"New Books" B. A. Ivanov, 2½ pp

"Khirurgiya" No 6

Abstracts 12 new medical books include S. I. Bemaytig's "Experimental, Clinical and Practical Traumatic Shock in Army Field Surgery," and G. M. Gurevich's "Cancer of the Rectum and Its Treatment."

Jun 49

52/49774

IVANOV, B. A.

Bibliography - Medicine

On the problem of microbiology, immunology, infectious diseases and epidemiology in the second and third quarter of 1952; articles from periodicals and books. Zhur. mikrobiol. epid. i immun. No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

IVANOV, B.A.

Russian literature on the problems of microbiology, immunology, infectious diseases and epidemiology for the third quarter of 1952. Zhur.mikrobiol. epid.i immun. no.3:80-90 Mr '53. (MLRA 6:5)

(Bacteriology--Bibliography) (Bibliography--Bacteriology) (Contagion and contagious diseases--Bibliography) / (Bibliography--Contagion and contagious diseases)

IVANOV, B.A.

Russian literature. On the problems of microbiology, immunology, infectious diseases and epidemiology for the fourth quarter of 1952 (continuation). Zhur. mikrobiol. evid. i immun. no.7:83-88 Jl '53. (MLRA 6:9)

(Microorganisms--Bibliography) (Bibliography--Microorganisms)
(Contagion and contagious diseases--Bibliography) (Bibliography--
Contagion and contagious diseases)

IVANOV, B.A.

Russian literature, on the problems of microbiology, immunology, infectious diseases and epidemiology for the fourth quarter of 1952 and the first quarter of 1953. Zhur.mikrobiol.epid.i immun. no.10:89-93 O '53.

(MLRA 6:12)

(Bibliography--Microorganisms) (Microorganisms--Bibliography)
(Bibliography--Contagion and contagious diseases} (Contagion and contagious diseases--Bibliography) (Bibliography--Antibiotics) (Antibiotics--Bibliography)

IVANOV, B.A.

Russian literature on problems of microbiology, immunology, infectious diseases and epidemiology during the second quarter of 1953. Zhur.mikrobiol.epid.i immun. no.12:78-82 D '53.

(MIRA 7:1)

(Bibliography--Epidemics) (Epidemics--Bibliography)
(Bibliography--Infection) (Infection--Bibliography)
(Bibliography--Antibiotics) (Antibiotics--Bibliography)

IVANOV, B.A.

Bibliography of articles concerned with microbiology,
immunology, infectious diseases, and epidemiology
published during the second quarter of 1953. Zh.
mikrobiologii, Moskva No.1:75-80 1954. (CIML 25:5)

IVANOV, B.A.

Russian literature on problems of microbiology, immunology, infectious diseases and epidemiology for the third quarter, 1953. Zhur.mikrobiol. epid.i immun. no.4:90-96 Ap '54. (MLRA 7:5)
(Bibliography--Microbiology) (Bibliography--Immunity)
(Microbiology--Bibliography) (Immunity--Bibliography)
(Bibliography--Epidemiology)
(Epidemiology--Bibliography)

IVAHOV, B.A.

Russian literature on microbiology, immunology, infectious diseases
and epidemiology in the fourth quarter of 1953. Zhur.mikrobiol.epid.
i immun. no.8:114-121 Ag '54. (MIRA 7:9)
(COMMUNICABLE DISEASES,
*in Russia, bibliog.)
(MICROBIOLOGY,
*in Russia, bibliog.)

IVANOV, B.A.

D.K.Zbaolotnyi; bibliographic data. Zhur. mikrobiol. epid. i immun.
no.12:7-17 D '54. (MLRA 8:2)
(ZABOLOTNYY, DANIIL KIRILLOVICH, 1866-1929)

IVANOV, B. A.

Russian literature on Problems in the field of microbiology, immunology, infectious diseases, and epidemiology during the fourth quarter of 1953. Zhur. mikrobiol. epid. i immun. no.12:93-103; contd. D '54.

(MLRA 8:2)

(MICROBIOLOGY,

bibliog.)

(IMMUNOLOGY,

bibliog.)

(COMMUNICABLE DISEASES,

bibliog.)

(EPIDEMIOLOGY,

bibliog.)

USSR Medicine - Infectious diseases

FD-2336

Card 1/1 Pub 148 - 35/36

Author : Ivanov, B. A.

Title : USSR publications on problems of microbiology, immunology, infectious diseases, and epidemiology for the 4 th quarter of 1953 and the 1 st quarter of 1954

Periodical : Zhur. mikro. epid. i immun. No 2, 111-123, Feb 1955

Abstract : Bibliography of articles that have been published in periodicals and as individual contributions to collections of articles, arranged according to subjects.

IVANOV, B.A.

Russian literature on microbiology, immunology, infectious diseases,
and epidemiology published during the third quarter of 1954. Zhur.
mikrobiol.epid.i immun. 5:116-124 My '55. (MLRA 8:7)

(IMMUNOLOGY,

bibliog.)

(COMMUNICABLE DISEASES,

bibliog.)

(EPIDEMIOLOGY,

bibliog.)

(MICROBIOLOGY,

bibliog.)

IVANOV, B.A.

Russian literature on microbiology, immunology, infectious diseases and epidemiology published during the final months of 1954 and the first quarter of 1955. Zhur. mikrobiol. epid. i immun. no.12:97-105 D '55. (MLRA 9:5)

(MICROBIOLOGY,
bibliog)

(IMMUNOLOGY,
bibliog)

(COMMUNICABLE DISEASES,
bibliog)

(EPIDEMIOLOGY,
bibliog)

IVANOV, B.A.

Russian literature on microbiology, immunology, infectious diseases and epidemiology published during the final period of 1954, and during the first two quarters of 1955. Zmbr.mikrobiol., epidem. i immun. 27 no.3:111-112 Mr' 56. (MIR 9:7)
(BIBLIOGRAPHY—COMMUNICABLE DISEASES)

IVANOV, B.

Russian literature on microbiology, immunology, communicable diseases, and epidemiology for the third and fourth quarters of 1955. Zhur.mikrobiol. epid. i. immun. 27 no.6:102-115 Je '56.
(MIRA 9:8)

(BIBLIOGRAPHY--COMMUNICABLE DISEASES)

IVANOV, B.

Russian literature on microbiology, immunology, infectious diseases,
and epidemiology published during the third quarter of 1956. Zhur.
mikrobiol.epid. i immun. 28 no.1:142-154 Ja '57. (MIRA 10:3)

(MICROBIOLOGY,
bibliog. (Rus))

(IMMUNOLOGY,
same)

(COMMUNICABLE DISEASES,
same)

(EPIDEMIOLOGY,
same)

BAGDASAR'YAN, Suren Markarovich, prof.; IVANOV, B.A., red.

[Essays on the history of higher medical education; on the history of the Military Medical Academy] Ocherki istorii vysshego meditsinskogo obrazovaniia; k istorii Voenno-meditsinskoi akademii. Moskva, Inst organizatsii zdravookhranenia i istorii med.im. N.A.Semashko, 1959. 104 p. (MIRA 13:3)
(MEDICINE, MILITARY--STUDY AND TEACHING)

L 20760-66 EMT(a)/ETC(m).6/T/EWP(f) NW/W/WE
ACC NR: AF6011508

SOURCE CODE: UH/0414/65/000/004/0084/0087

AUTHOR: Ivanov, B. A. (Moscow); Kogarko, S. M. (Moscow)

ORG: none

TITLE: Concentration limits of flame propagation in acetylene-oxygen

SOURCE: Fizika goreniya i vzryva, no. 4, 1965, 84-87

TOPIC TAGS: flame propagation, combustion, acetylene, ignition limit, propulsion

ABSTRACT: Previous work had shown that at atmospheric pressure there is no upper concentration limit for flame propagation in acetylene mixtures with air and oxygen. This work deals with the experimental investigation of concentration limits of flame propagation in acetylene-oxygen mixtures in relation to pressure. The following experimental arrangement was used:

Card 1/3

L 20768-66

ACC NR: AP6011508

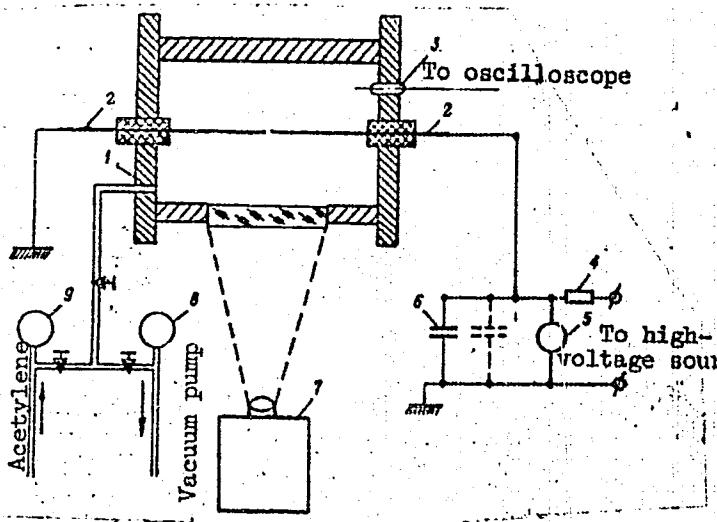


Fig. 1. Experimental arrangement

- 1 - Experimental vessel;
2 - ignition electrodes;
3 - ionization counter;
4 - resistance; 5 - electrostatic voltmeter;
6 - capacitors; 7 - photometer; 8 - vacuum gage;
9 - manometer.

Card 2/3

L 20768-66

ACC NR: AP6011508

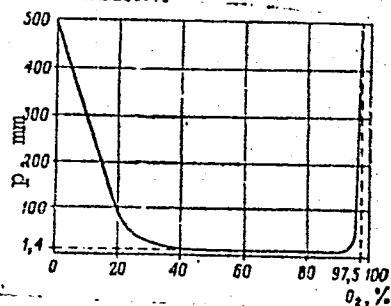


Fig. 2. The dependence of the limiting pressure of flame propagation on the composition of the acetylene-oxygen mixture,
 $T_0 = 18^\circ\text{C}$

It was found that acetylene-oxygen mixtures have a well-pronounced lower concentration limit. There is no upper concentration limit, since flame propagation is possible in pure acetylene up to a limiting initial pressure of 0.65 abs. atm. The value of the lower limit determined in this work coincides with that determined previously for atmospheric pressure. The dependence of the ignition energy on mixture composition and electrode gap are discussed. Orig. art. has: 4 figures and 1 table.

[VS]

SUB CODE: 21 / SUBM DATE: 27 May 65 / ORIG REF: 001 / OTH REF: 002 / ATD PRESS: -
 4225

Card 3/3

UDC: 536.46

PA 27T43

IVANOV, B. A.

USSR/Geology
Coal

Jul/Aug 1947

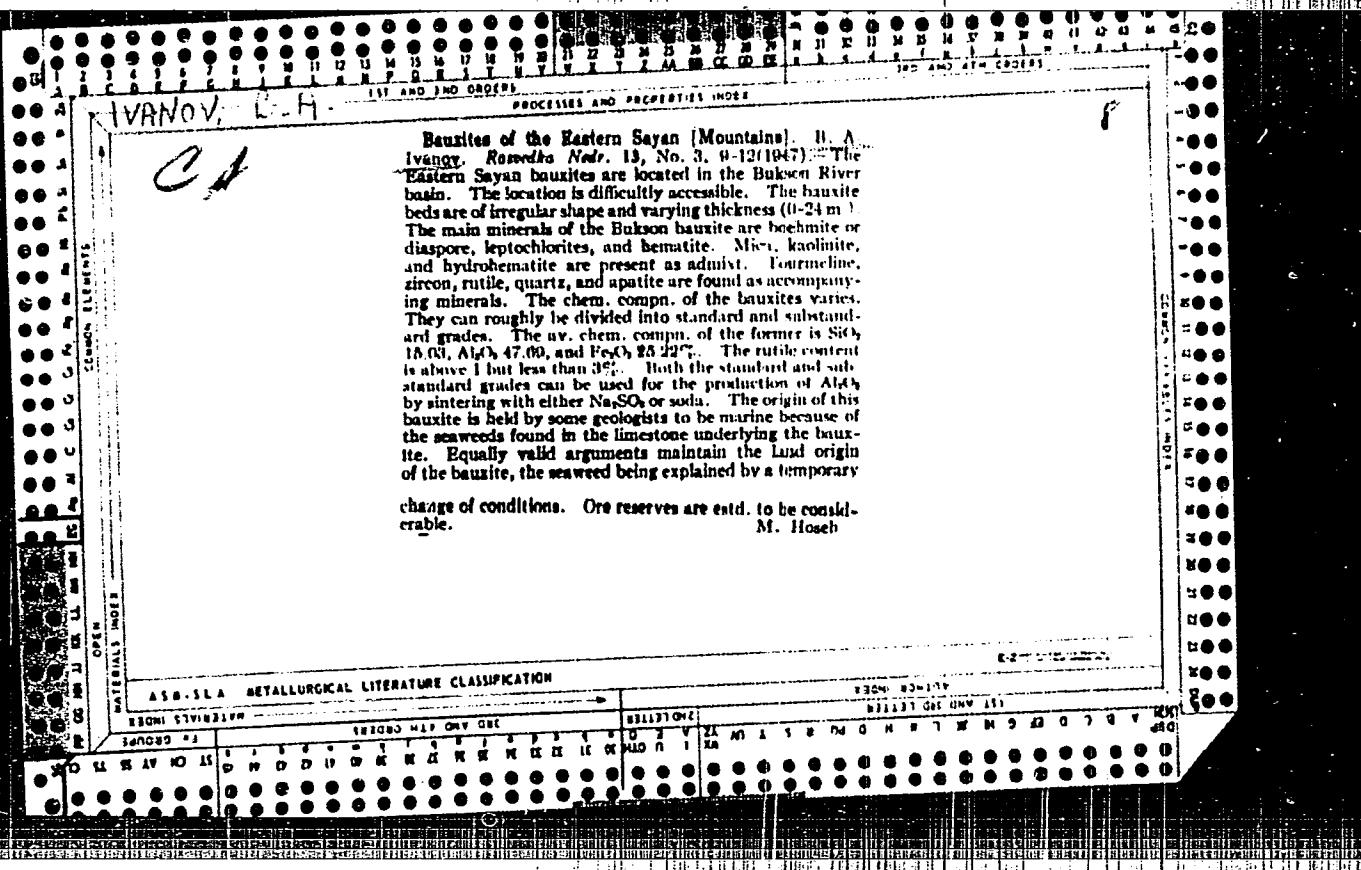
"Geology of the Irkutsk Basin," B. A. Ivanov, 3 pp

"Razvedka Nedr" No 4

Author presents some additional geological data on the Irkutsk coal depository basin and discusses some of the factors relating to the Jurassic layer. Also mentions the Paleozoic era coal layers.

LC

27T43



USSR/Geophysics - Coal, Anthracite Nov/Dec 50

"Structure and Conditions Governing the Accumulation of Sediments of Southeast Part of the Irkutsk Anthracite Basin," B. A. Ivanov

"Iz Ak Nauk SSSR, Ser Geol" No 6, pp 62-76

The southeastern portion of the Irkutsk coal basin is distinguished by its peculiar geol structure. Concludes deep depression here occurred simultaneously with formation of sloping folds and accumulation of sediments, and accumulation of sediments occurred in various horizons of the Jura stratum because of various regions of runoff.

177T39

IVANOV, B.A.

Intraplatform zone of linear anticlinal folds. Trudy Vost.-Sib.
filAN SSSR Ser.geol. no.1:54-69 '54. (MIRA 8:12)
(Siberia--Folds(Geology))

IVANOV, B.A.

The age of Carboniferous deposits in Transbaikalia ("Age diversity
of continental deposits of Transbaikalia." G.G. Marinson. Reviewed by
B.A. Ivanov). Izv. AN SSSR. Ser.geol. 21 no.6:118 Je '56.

(MIRA 9:10)

(Transbaikalia--Geology, Stratigraphic)

IVANOV, B.A.

Division of the southern Sikhote-Alin' Range into structural, facial,
and tectonic regions [with summary in English]. Sov. geol. 3 no.10:
42-59 0'60. (MIRA 13:10)

1. Primorskaya geologicheskaya upravleniya.
(Sikhote-Alin' Range--Geology, Structural)

IVANOV, Boris Alekseyevich; ODINTSOV, M.M., otv. red.; PERLOVICH, B.F.,
red.; PECHERSKAYA, T.I., tekhn. red.

[Plan of the stratigraphy, facies regionalization, and tectonics
of the Sikhote-Alin' Range] Skhema stratigrafii, fatsial'nogo
raionirovaniia i tektoniki IUzhnogo Sikhote-Alinia. Irkutsk,
Irkutskoe knizhnoe izd-vo, 1961. 45 p. (MIRA 16:2)
(Sikhote-Alin' Range—Geology)

IVANOV, B.A.

The central Sikhote-Alin' fracture (fault). Dokl.AN SSSR 138
no.4:900-903 Je '61. (MIRA 14:5)

1. Predstavleno akademikom D.V.Nalivkinym.
(Sikhote-Alin' Range---Faults (Geology))

IVANOV, B.A.

Boundary of the Hercynian folds and the presence of latitudinal
structural suture in the southern Sikhote-Alin' Range. Sov.geol.
5 no.2:134-136 F '62. (MIRA 15:2)

1. Primorskoye geologicheskoye upravleniye.
(Sikhote-Alin' Range—Folds(Geology))

IVANOV, B.A.

IU.F.Misnik, M.IU. Fishkin's article "New data on the geology
and petrography of the Sretensk granitoid massif (eastern
Transbaikalia)." Geol. i geofiz. no.8:94-95 '63. (MIRA 16:10)

(Transbaikalia—Granite)
(Misnik, IU.F.) (Fishkin, M.IU.)

IVANOV, B.A.

Cretaceous stratigraphy of the southern Sikhote-Alin' Range.
Biul. MOIP. Otd. geol. 39 no.4:57-75 Jl-Ag '64.
(MIRA 17:10)

BAGDASAR'YAN, S.M., prof.; IVANOV, B.A.; PREOBRAZHENSKAYA, M.M.;
RZHANOVICH, P.K.; SHUR', Ye.I.; SAFONOVA, M.I.; SMIRNOV, Z.,
red.

[Dissertations for the degree of Doctor and Candidate of
Medical Sciences defended from 1951 to 1955] Dissertatsii
na stepen' doktora i kandidata meditsinskikh nauk, za-
shchishchenye v 1951-1955 gg. Pod red. S.M.Bagdasar'iana.
Moskva. Vol.3. Pt.1. Bibliografija. 1962. 303 p.
(MIRA 17:1)

1. Akademiya meditsinskikh nauk SSSR. Moscow. Otdel nauch-
noi meditsinskoy informatsii.

IVANOV, D.V.

ACHERKAN, Naum Samuilovich, 1872-, doktor tekhnicheskikh nauk, professor, redaktor; BELYAYEV, V.N., dotsent, kandidat tekhnicheskikh nauk; BIDERMAN, V.L., kandidat tekhnicheskikh nauk; BOROVICH, L.S., kandidat tekhnicheskikh nauk; GASHINSKIY, A.G., inzhener; GORODETSKIY, N.Ye., professor, doktor tekhnicheskikh nauk; IVANOV, B.A., professor, doktor tekhnicheskikh nauk; KOLMIYTSEV, A.A., dotsent, kandidat tekhnicheskikh nauk; KRAGEL'SKIY, I.V., professor, doktor tekhnicheskikh nauk; PETROSEVICH, A.I., doktor tekhnicheskikh nauk; POZDNYAKOV, S.N., dotsent; PONOMAREV, S.D., professor, doktor tekhnicheskikh nauk; PORTUGALOVA, A.A., kandidat tekhnicheskikh nauk; PRONIN, B.A., kandidat tekhnicheskikh nauk; RESHETOV, D.N., professor, doktor tekhnicheskikh nauk; SAVERIN, L.N., professor, doktor tekhnicheskikh nauk; SAVERIN, M.A., professor, doktor tekhnicheskikh nauk; SAVERIN, N.A., kandidat tekhnicheskikh nauk; SLOBODKIN, M.S., inzhener; SPITSYN, N.A., professor, doktor tekhnicheskikh nauk; STOLBIN, G.B., dotsent, kandidat tekhnicheskikh nauk; UMNOV, V.A., inzhener; CHERNYAK, B.Z., kandidat tekhnicheskikh nauk; SHCHEDROV, V.S., dotsent, kandidat tekhnicheskikh nauk.

[Machine parts; collection of materials on calculation and design in two volumes; vol.1] Detali mashin; sbornik materialov po raschetu i konstruirovaniyu. Izd.2., ispr.i dop. Moskva, Gos. nauchno-tekn. izd-vo mashinostroit. i sudostroit. lit-ry, 1953- .
(MLRA 6:11)
(Machinery--Design)

ACHERKAN, N.S., doktor tekhnicheskikh nauk, professor, redaktor;
BELYAYEV, V.N., kandidat tekhnicheskikh nauk, dotsent;
BIDERMAN, V.L., kandidat tekhnicheskikh nauk; BOROVICH, L.S.,
kandidat tekhnicheskikh nauk; GASHINSKIY, A.G., inzhener;
GORODETSKIY, I.Ye., doktor tekhnicheskikh nauk, professor;
IVANOV, B.A., doktor tekhnicheskikh nauk, professor;
KOLOMIYTSEV, A.A., kandidat tekhnicheskikh nauk, dotsent;
KRAGEL'SKIY, I.V., doktor tekhnicheskikh nauk, professor;
MAZYRIN, I.V., inzhener; NIKOLAYEV, G.A., doktor tekhnicheskikh nauk, professor; PETRUSEVICH, A.I., doktor tekhnicheskikh nauk; POZDNYAKOV, S.N., dotsent; PONOMAREV, S.D., doktor tekhnicheskikh nauk, professor; PORTUGALOVA, A.A., kandidat tekhnicheskikh nauk; PRONIN, B.A., kandidat tekhnicheskikh nauk; RESHETOV, D.I., doktor tekhnicheskikh nauk, professor; RESHETOV, L.N., doktor tekhnicheskikh nauk, professor; SAVERIN, M.A., doktor tekhnicheskikh nauk, professor; SAVERIN, M.M., kandidat tekhnicheskikh nauk; SLOBODKIN, M.S., inzhener; SPITSYN, N.A., doktor tekhnicheskikh nauk, professor; STOLBIN, G.B., kandidat tekhnicheskikh nauk, dotsent; UMMOV, V.A., inzhener; CHERNYAK, B.Z., kandidat tekhnicheskikh nauk; SHCHEDROV, V.S., kandidat tekhnicheskikh nauk, dotsent.

[Machine parts; collection of materials on calculation and design in two volumes] Detali mashin; sbornik materialov po raschetu i konstruirovaniyu v dvukh knigakh. Izd.2. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit.i sudostroit.lit-ry. Vol. 2. 1953. 560 p. (MLRA 6:12)

(Machinery--Design)

IVANOV, Ye.A., kandidat tekhnicheskikh nauk, dotsent; IVANOV, B.A., doktor tekhnicheskikh nauk, professor, retsenzent; BOROVICH, L.S., kandidat tekhnicheskikh nauk, redaktor; TIKHONOV, A.Ya., tekhnicheskiy redaktor; MATVEIEVA, Ye.N., tekhnicheskiy redaktor.

[Transmission clutches] Mifty privodov. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 346 p. (MLRA 8:1)
(Clutches (Machinery))

IVANOV, B.A., prof., doktor tekhn.nauk, otvetstvennyy red.; POLESITSKAYA,
S.M., tekhn.red.

[Terminology of machine parts: clutches] Terminologija detalей mashin;
mufty. Moskva, 1958. 21 p. (Sborniki rekomenduemykh terminov,
no.45) (MIRA 11:5)

1. Akademiya nauk SSSR. Komitet tekhnicheskoy terminologii.
(Clutches (Machinery))

S/123/62/000/009/010/017
A052/A101

AUTHORS: Pinchuk, G. A., Ivanov, B. A., Nemanov, M. S., Mineyev, Yu. A.

TITLE: The effect of surface hardening on the fatigue strength of mine electric locomotive axles

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 9, 1962, 38-39,
abstract 9B172 (V sb. "Povysheniye dolgovechnosti detaley mashin
poverkhnostn. naklejkom". Perm', 1961, 22-30)

TEXT: The effect of surface hardening by means of burnishing the under-nave parts of axles on their fatigue strength was investigated. Experimental axle specimens were prepared of steel 45 subjected to normalizing and refinement. Hub specimens to press-on were made of 40 XH (40KhN) steel and refined to hardness HB 210. The burnishing was performed by means of one-roll burnishing appliance under the following conditions: burnishing force 450 kg, burnishing speed = 40 m/min, feed = 0.15 mm/min, number of passes = 2. For burnishing a roll of 45 mm in diameter with the profile radius of 5 mm was used. The investigations have established that the surface hardness after burnishing under mentioned conditions increases by 30%, and the depth of the work hardened

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S/123/62/000/009/010/017

A052/A101

The effect of surface hardening ...

layer is 2 mm. The burnishing of under-nave axle parts increases their fatigue strength by 150% compared with the not hardened specimens. The presence of a hub pressed-on on the axle reduces the fatigue strength by 50% compared with flat specimens. The tightness does not affect practically the fatigue strength of burnished axles and somewhat reduces that of unburnished axles. An application of steel subjected to refinement instead of normalizing does not affect the fatigue strength of under-nave axle parts. There are 7 figures.

E. Spivak

[Abstracter's note: Complete translation]

Card 2/2

MUKHIN, R.I.; IVANOV, B.A.

Cutter with mechanical drive for the cutting of synthetic
and reclaimed rubber. Kauch. i rez. 23 no.6:57 Je '64.
(MIRA 17:9)
1. Voronezhskiy shinnyy zavod.

ACC NR

AP6004883

SOURCE CODE: UR/0057/66/036/001/0089/0101

AUTHOR: Afrosimov, V.V.; Ivanov, B.A.; Kislyakov, A.I.; Petrov, M.P.

ORG: none

TITLE: Active diagnosis of a hot plasma by means of neutral particles

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 1, 1966, 89-101

TOPIC TAGS: heated plasma, hydrogen plasma plasma diagnostics, plasma density, particle beam, neutral particle, atomic beam, charge exchange.

ABSTRACT: A technique for measuring the charged particle density of a hydrogen plasma with the aid of a beam of high energy (5-20 KeV) hydrogen atoms has been developed and tested by measuring plasma densities in the "Al'ta" installation. The method has the advantages of good sensitivity, negligible interference with the plasma fields. The injector consisted of an ion source, accelerating electrodes, electrostatic deflecting electrodes for directing the beam, a charge exchange chamber containing hydrogen at $(1-4 \times 10^{-4})$ mm Hg in which some of the ions were neutralized, and a transverse electric field which removed the unneutralized ions. After traversing the plasma the hydrogen atom beam passed through a transverse electric field which cleared it of any charged particles that it might have picked up, and a charge exchange chamber in which some of the atoms became ionized. The ions issuing from

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UDC: 533.9.07

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ACC NR: AP6004883

D

the charge exchange chamber were analyzed by means of electric and magnetic fields and those with the proper energy and mass, corresponding to the energy and mass of the initial probe beam particles, were recorded with a scintillation counter. The sensitivity was such that a beam current corresponding to 10^{-10} A of singly-charged ions could be employed. The injector and detector assemblies were enclosed in iron housings of approximately 1 cm wall thickness for magnetic shielding. The plasma density was calculated from the attenuation of the beam on traversing the plasma. The theoretical discussion is facilitated by the fact that once a beam particle is ionized it is removed from the beam by the ambient magnetic field, so that the possibility of the ion becoming neutralized again does not have to be considered. The most significant beam attenuating process is shown to be resonant charge exchange with plasma protons; ionization by electron impact is also significant, but other processes are negligible. The effect of scattering of beam atoms was partly eliminated by comparing the attenuation of the beam by the plasma with its attenuation by an equivalent mass of unionized gas, and the residual effect of scattering was shown experimentally to be imperceptible. The attenuation of the beam was independent of beam energy over the investigated range from 4 to 20 keV. The attenuation of such high energy beams is nearly independent of the plasma temperature. The decay curve of the plasma in the "Alfa" machine from 1.5×10^{13} to 0.2×10^{13} cm⁻³ as measured with the hydrogen atom probe agreed within the experimental error with the decay curve measured with a microwave interferometer. It is concluded that with the investigated technique one can make

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ACC NR: AP6004883

absolute measurements of the ion concentration in a hot hydrogen plasma over the range of plasma thickness from 5×10^{13} to 10^{16} cm^{-2} . The authors thank N.V. Fedorenko for his interest and for valuable discussions. Ya.G.Kumar and A.M. Timonin for their interest, and M.M.Larionov and V.V.Rozdestvenskiy for performing the microwave interferometer measurements. Orig. art. has: 6 formulas and 7 figures. [15]

SUB CODE: 20/ SUBM DATE: 03May65/ ORIG REF: 015/ OTH REF: 007/ ATD PRESS: 42203

FW
Card 3/3

IVANOV, B.A.; PARFENOV, K.A.; MALIN, B.A.

Electrical wireless turbotachometer operating in the frequency range
below 1 hz. Mash. i neft. obor. no.8:27-30 '65. (MIRA 18:9)

1. Groznenskiy filial Vsesoyuznogo nauchno-issledovatel'skogo i
projektno-konstruktorskogo instituta kompleksnoy avtomatizatsii
neftyanoy i gazovoy promyshlennosti.

IVANOV, B.A. (Moskva); KOGARKO, S.M. (Moskva)

Spread of the chemical reaction zone in pure acetylene and mixtures
with other gases. PMTF no.3:59-66 My-Je '63. (MIRA 16:9)
(Gases--Thermodynamic properties) (Combustion)

MAKEDONSKI, Todor, inzh.; IVANOV, Boris., inzh.

Current maintenance of railroads with reinforced teams. Transp
delo 6 no.2±15-22 :54.

IVANOV, Boris

-Scientific bases of the division into economic districts.
Godishnik biol 54 no.3:101-141 '59/'60 [publ. '61].

Ivanov, Boris

Characteristics and problems of the municipality of Izvor, Pernik District, from the viewpoint of economic geography. Godishnik biol 56 no.3:195-25 '61-'62 [publ '63].

IVANOV, Boris, inzh.

Conditional leveling of a combined intersection by directional angles and directions. Godzisznyk Inzh stroit #mat 14 no.1:
249-256 *62. [publ. '63]

IVANOV, B.F.

Setup for improving ventilation in plants. Kons.i ov.prom. 15 no.5:
21 My '60.
(MIRA 13:9)

1. Dokshukinskiy konservnyy zavod.
(Canning industry-- Equipment and supplies)

IVANOV, B.F.

Utilization of large boxes for the shipment of goods. Kons.1
ov.prom. 15 no.7:39 J1 '60. (MIRA 13:6)
(Dokshukino--Shipment of goods)

L 26164-66 EWA(h)/EWP(k)/EWT(d)/EWT(m)/ETC(m)-6/EWP(w)/EWP(v) IJP(c) EM/HW

ACC NR: AP6011784

SOURCE CODE: LR/0147/66/000/001/0047/0053

46
45
B

AUTHOR: Bulygin, A. V.; Ivanov, B. F.

ORG: none

TITLE: Calculating natural oscillation harmonics of beams having slightly variable characteristics as to length *Zlo* *Vlo*

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 1, 1966, 47-53

TOPIC TAGS: harmonic oscillation, successive approximation, vibration theory, torsional vibration, flexural vibration, glider/KAI-14 glider, KAI-19 glider

ABSTRACT: The authors criticize current methods for computing natural oscillation frequencies and forms. Ritz's method and the sequential approximation method are singled out. The primary drawback of these methods for calculating harmonics is the significant increase in time loss or reduction in accuracy. A similarity exists between a beam which is longitudinally homogeneous with respect to vibration and a beam of uniform cross section. This similarity is utilized for simplifying the solution. The method proposed by the authors is based on asymptotic integration. Torsional and bending vibrations are considered. The limitations of the method are discussed. Examples are given for KAI-14 and KAI-19 glider wing calculations demonstrating the application of this method to wing structures. The method requires less time and is

UDC: 534.1 + 629. 13. 014. 3

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L 26164-66

ACC NR: AP6011784 /

more graphic. The accuracy of the calculations increases with the number of harmonics.
Orig. art. has: 2 figures, 17 formulas.

SUB CODE: 20/ SUBM DATE: 26Nov64/ ORIG REF: 001/ OTH REF: 001

Additional Clue Word:

Probably Kazan Aviation Institute

Card 2/2 CC

23736

S/089/61/010/006/001/011
B102/B212

21/330

AUTHORS: Grishanin, Ye. I., Ivanov, B. G., Sharapov, V. N.

TITLE: A method of partial fuel reloading in nuclear reactors

PERIODICAL: Atomnaya energiya, v. 10, no. 6, 1961, 565 - 571

TEXT: The present paper deals with a theoretical investigation of the partial fuel reloading on the burn up depth of uranium in the fuel channel of a reactor. In this fuel reloading method the fuel is gradually reloaded according to the burn up in order to keep the reactivity excess to a minimum. The highest burn up depth in the fuel channel is obtained with a continuous fuel reloading, this case was already discussed by B. L. Ioffe and L. B. Okun' ("Atomnaya energiya", no. 4, 80 (1956)). In general a fuel reloading will require the shut down of the whole reactor (with the exception of the Calder-Hall reactors). The method of the partial periodic fuel reloading has been tested for the first time (1956) with the reactor of the first nuclear power station in the USSR ("Atomnaya energiya" II, no. 2, 109, (1957)). The Russian S. M. Feynberg talked about the theory of this method at the 2nd Geneva Atomic Conference, IX e

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S/089/61/010/006/001/011

B102/B212

A method of partial fuel reloading ...

1958; (number of the lecture not given). At first the theory itself is outlined. Later on, it is investigated what part of the fuel has to be reloaded periodically (optimum amount of fuel to be exchanged) in order to keep the costs P of the electric energy to a minimum. From the condition that P shall be a minimum, the optimum amount is calculated with

the help of formula (15): $P = \frac{1}{E} [(c_1 + c_2 t_0)N + c_2 t_1 (\frac{1}{\eta} - q) + c_2 t_2 q + \frac{c_2 T_k}{b}]$, where c_1 denotes the difference in costs between virgin fuel and the fuel removed from the reactor; c_2 the consumption (per day); T_k the mean length of operation of a fuel channel (in effective days) during which the power station has generated E kwh of electric energy; b the load coefficient of the station; t_0 the time required to reload a fuel channel; t_1 the total time of the shut down and the starting up of the reactor; t_2 the down time of the power station for scheduled preventive maintenance and q the number of such shut downs during a time T_k ; η the reloading factor equal n/N (from a total of N fuel channels n will be reloaded). The optimum

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A method of partial fuel reloading ...

η value is obtained from the condition: $dP/d\eta = 0$ $\eta_{opt} =$

$t_1/(c_2^0 + t_0)N \sim b_2/c_0$, since $t_0 \ll c_0/c_2$. If $c_0 \rightarrow 0$, according to (15)
 P will be a minimum if $\eta = 1$. These expressions are valid for an infinite
lattice of fuel channels if the regeneration is taken into account.
Numerical calculations have been done for the first nuclear power station
($\eta_{opt} = 0.077$) and for the Beloyarskaya atomnaya elektrostantsiya im.

I. V. Kurchatova (Beloyarsk nuclear power station imeni I. V. Kurchatov).
Fig. 5 shows $P(\eta)$ for various values of c_0/c_2 (c_0 denotes the price of
new fuel elements) and Fig. 6 shows $P(\eta)$ with regeneration (curve 1) and
without regeneration (curve 2). Concluding it is found that: 1) Partial
periodic fuel reloading will increase the burn up depth without increasing
the initial reloading; 2) this type of operation requires less shim rods;
3) the uniformity of the energy release will be improved; 4) consideration
of the regeneration will shift the optimum η -value toward higher values.
The authors thank A. K. Krasin for interest, O.D. Kazachkovskiy and
M. Ye. Minashin for suggestions and advice. There are 6 figures and

Card 3/4

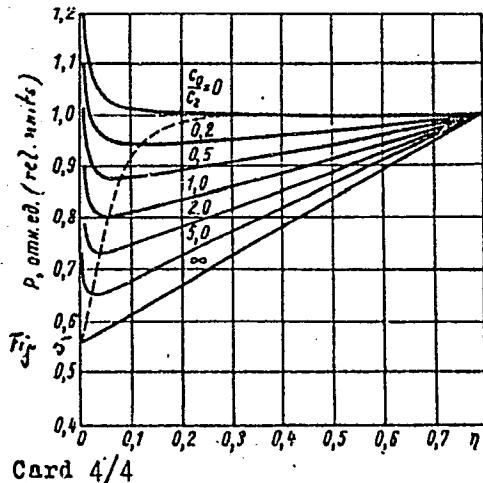
23736

S/089/61/010/006/001/011
B102/B212

A method of partial fuel reloading ...

7 references: 5 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: S. Lewis, B. Eng. J. Brit. Nucl. Energy Conf., 4, no. 3, 184 (1959).

SUBMITTED: September 7, 1960



Card 4/4

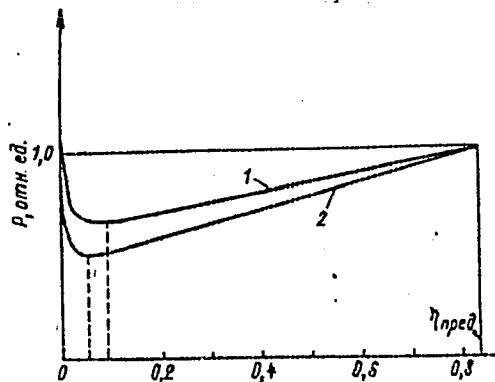


Fig. 6

BELYAYEV, G.M.; IVANOV, B.G.

Bipolarity of ophiuroids of the genus *Teporkovia* Djakonov.
Zoologicheskii zhurnal, 40 no. 8:1258-1260 Ag '61.

(MIRA 14:8)

1. Institute of Oceanology, U.S.S.R. Academy of Sciences,
and All-Union Institute of Marine Fishery Management and
Oceanography (Moscow).
(Ophiuroidea)

IVANOV, Boris Georgiyevich; POTEMKINA, N.S., red.

[Present state of world shrimp fisheries] Sovremennoe
sostoianie mirovogo promysla krevetok. Moskva, Pishche-
vaya promyshlennost', 1964. 132 p. (MIRA 18:6)

1ST AND 2ND QUARTER		PROCESS AND PROPERTIES INDEX	
IVANOV, B.G.		7	
<p>Potentiometric determination of aluminum in bronzes and steel. B.O. Ivanov and S.M. Bezaykin. <i>Zavodskaya Lab.</i> 15, 515-14 (1949).--Dissolve the bronze sample in HCl-HNO₃, evap. to syrup, dil. with 10-15 ml. water, neutralize with dil. NH₄OH (using tropeolin O indicator), sat. with NaCl, add 1 vol. 96% EtOH, pass in CO₂ for 3 min., add 2-3 drops fresh satd. FeSO₄ soln., and titrate in a CO₂ stream with 0.5 N NaF, using a 14-electrode system. In steel samples 20% NaOH is used for the partial neutralization of the acid for Fe sepn. and an aliquot of the filtrate is acidified with HCl and boiled with a small amt. of FeCl₃ prior to the procedure given for bronze. Since the potential is slow in being established, it is best to titrate several samples simultaneously, using a multi-pole switch for connections to several electrode pairs from the same indicating instrument. Relative error is under 1.5%.</p> <p>G. M. Kosolapoff</p>			
ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION			
VOLUME #1 1900-1910 1911-1920 1921-1930 1931-1940 1941-1950 1951-1960 1961-1970 1971-1980 1981-1990 1991-1995 1996-1999 1999-2000 2001-2002 2003-2004 2005-2006 2007-2008 2009-2010 2011-2012 2013-2014 2015-2016 2017-2018 2019-2020 2021-2022 2023-2024 2025-2026 2027-2028 2029-2030 2031-2032 2033-2034 2035-2036 2037-2038 2039-2040 2041-2042 2043-2044 2045-2046 2047-2048 2049-2050 2051-2052 2053-2054 2055-2056 2057-2058 2059-2060 2061-2062 2063-2064 2065-2066 2067-2068 2069-2070 2071-2072 2073-2074 2075-2076 2077-2078 2079-2080 2081-2082 2083-2084 2085-2086 2087-2088 2089-2090 2091-2092 2093-2094 2095-2096 2097-2098 2099-20100 20101-20102 20103-20104 20105-20106 20107-20108 20109-20110 20111-20112 20113-20114 20115-20116 20117-20118 20119-20120 20121-20122 20123-20124 20125-20126 20127-20128 20129-20130 20131-20132 20133-20134 20135-20136 20137-20138 20139-20140 20141-20142 20143-20144 20145-20146 20147-20148 20149-20150 20151-20152 20153-20154 20155-20156 20157-20158 20159-20160 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C.A. IVANOV, B.G.

Photocolorimetric determination of titanium. B. G. Ivanov and S. M. Bezvaiko. *Zavodskaya Lab.* 16, 875 (1950).—The method described by Shisterman and Yakimleva (*C. A.*, 44, 4824) is shown to be applicable to the detn. of Ti in a wide variety of alloys. The sample in H_2SO_4 -HCl-HNO₃ soln. is boiled to expel N oxides, cooled,稀释. to 100 ml., two 25-ml. aliquots are taken, to one of which are added 1 ml. H_3O_2 soln. and 3 ml. H_3PO_4 , while only the latter is added to the 2nd aliquot; after 5 min. a colorimetric detn. is made by using a blue light filter. Relative error is 3-4% with 0.4-2.5% content of Ti. G. M. Kosolapoff

Ivanov, B. G.

USSR/Miscellaneous - Foundry processes

Card 1/1 : Pub. 51 - 2/23

Authors : Ivanov, B. G.

Title : Methods of correcting casting defects

Periodical : Lit. proizv. 3, 3-5, May-June 1954

Abstract : Various methods for the correction and control of casting defects are analyzed. The correction of defects of gray-iron castings is realized by a combination of different methods, the selection of which depends upon the nature of the defect (blind or open defects, cracks, blisters, etc.), its position and size and the technological requirements of corrective casting. The basic corrective methods are divided into cold and hot. The hot and cold correction processes are explained. Seven USSR references (1949-1952). Illustrations.

Institution : ...

Submitted : ...

IVANOV, B.G., inzhener; UKHIN, B.N., inzhener.

Experience operating high-pressure boilers equipped with bubbling
steam washing. Elek.sta. 28 no.8:68 Ag '57. (MIRA 10:10)
(Boilers)

YELISTRATOV, Petr Savel'yevich; IVANOV, B.G., kand.tekhn.nauk, retsenzent;
ZVEGINTSEVA, K.V., inzhener, red.; MEZHOOVA, V.A., red.izdatel'stva;
TIKHANOV, A.Ya., tekhn.red.

[Metallurgical principles of iron welding] Metallurgicheskie
osnovy svarki chuguna. Moskva, Gos.nzuchno-tekhn.izd-vo mashino-
stroit.lit-ry, 1957. 154 p. (MIRA 10:12)

(Welding)

Ivanov, E. S.

IVANOV, E.S., author; MATIN, S.A., editor.

Experimental operation of a light-pressure boiler having a steam
generator; investigation [with summary, in English]. *Tekloenergetika*
no. 3(42-4), 1977.
(MIRA 10:9)

1. 1977-04-01

1977-04-01

25 (1)

SOV/135-59-4-10/18

AUTHOR: Ivanov, B. G., Engineer

TITLE: The Selection of Welding Methods for Grey Cast Iron
(Vybor sposobov svarki serogo chuguna)

PERIODICAL: Svarochnoye proizvodstvo, 1959, Nr 4, pp 34 - 40 (USSR)

ABSTRACT: The author briefly reviews the various existing methods of welding grey cast iron and states that, though the job is properly organized and equipped at such large plants as the "Stankolit" plant in Moscow, Leningrad and Tbilisi, the Avtozavod imeni Likhacheva (Motor Vehicle Plant imeni Likhachev), Kirovskiy zavod (Kirov Plant) in Leningrad, etc., welding methods are not being properly chosen, and damage or ruin results. He stresses the necessity of a standard method for the selection of welding techniques and suggests a classification in the form of charts. With this the proper welding method could be readily found for the various kinds of casting defects to be repaired (small or large cavities, holes, concentrated porosity, etc.). The intended use for the casting wall or surface (work

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SOV/135-59-4-10/18

The Selection of Welding Methods for Grey Cast Iron

under static or dynamic loading, friction, etc.) would determine the proper electrode metal, electrode coating or flux for the selected welding method.

There are 6 charts.

ASSOCIATION: Zavod "Stankolit" (Plant "Stankolit")

Card 2/2